

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application. No.	:	10/815,401	Confirmation No. 7970
Applicant	:	Pierre Guillaume Raverdy	
Filed	:	March 31, 2004	
TC/A.U.	:	2616	
Examiner	:	Salman Ahmed	
Docket No.	:	080398.P594	
Customer No.	:	8791	

Commissioner for Patents
PO Box 1450
Alexandria VA 22313-1450

REPLY BRIEF

Sir:

This Reply Brief is in response to the Examiner's Answers of February 5, 2010. Applicant submits the following Reply Brief pursuant to 37 C.F.R. §41.41 for consideration by the Board of Patent Appeals and Interferences. Please charge any additional fees or credit any overpayment to our deposit Account No. 02-2666. A duplicate copy of the Fee Transmittal is enclosed for this purpose.

REMARKS/ARGUMENTS

The following are Applicant's reply to the Examiner's Answer dated February 5, 2010 to the Appeal Brief.

For brevity and clarity, Applicant will respond to some arguments in the Examiner's Answer and not all of them because these arguments have already been presented in the Appeal Brief.

1. 35 U.S.C. §101 Rejection of claims 25-36:

In the Examiner's Answer, the Examiner contends that claims 25-30 as directed to "[t]ransitory forms of signal transmission (for example, a propagating electrical or electromagnetic signal per se)," citing the "Interim Examination Instruction from Evaluating Subject Matter Eligibility Under 35 USC 101 Aug. 2009."

At the onset, Applicant submits that the rejected claim recites "a machine-accessible storage medium," not just "a machine-accessible medium." Accordingly, all Examiner's arguments about "a machine-accessible medium" are directed to language that is not claimed and therefore are irrelevant.

Furthermore, Applicant submits that the Examiner's arguments are flawed in many aspects as discussed below.

First, the Examiner cited paragraphs in the Specification, arguing that since the specification states that the term "hardware" general refers to an element having a physical structure such as electronic, electromagnetic, optical, electro-optical, mechanical, electro-mechanical parts, etc., then the term "hardware" MUST include transitory signal or carrier-wave (Examiner's Answer, page 13). Applicant respectfully disagrees. The specification is clear that the term "hardware" refers to an element having a physical structure such as ... electromagnetic .. parts, etc. Since the specification clearly states "a physical structure" and "parts", it describes, among other things, an electromagnetic part or component (e.g., a hard disk). The term "electromagnetic" is used as an adjective to characterize a component or part that has electromagnetic characteristics. Similarly, according to the Examiner's interpretation, a description that a physical structure such as an optical part must include a light ray. This interpretation is clearly improper. It is obvious that the Examiner ignores the descriptive nouns "physical structure" and "parts" in the description.

Second, the Examiner is apparently confused between a physical structure that can generate a transitory signal and a transitory signal. A cell phone may generate an electromagnetic signal but it is not an electromagnetic signal. A human brain may generate a thought, but it is not a thought.

Furthermore, Applicant has presented the arguments regarding alternative description in the Appeal Brief.

2. 35 U.S.C. §101 Rejection of claims 25-36:

The Examiner cited paragraph [0108] regarding a description of “processor readable or accessible medium” or “machine readable or accessible medium” and contends that it is unclear how a machine could access data stored in machine-accessible storage medium comprising of “carrier-wave or RF or electromagnetic-signal” (Examiner's Answer, page 17).

As discussed above, Applicant submits that the rejected claim recites “a machine-accessible storage medium,” not just “a machine-accessible medium.” Accordingly, all Examiner's arguments about “a machine-accessible medium” are directed to language that is not claimed and therefore are irrelevant.

The term “storage” is clearly statutory. A person skilled in the art would understand what the term “storage” means. The Specification provides several examples of such storage components such as an electronic circuit, a semiconductor memory device, etc.

3. Claims 1, 3-8, and 10-13, 15-20, and 22, 24-25, 27-32, 34, and 36-40:

The Examiner contends that a frame module is the central coordinator (CCo) while an information module being the topology table (Examiner's Answer, page 25). Applicant respectfully disagrees.

As discussed in the Appeal Brief, a frame module and an information module are two separate modules. If the CCo is interpreted as a frame module, then it cannot be an information module. The Examiner states that the topology table is the information module. However, the topology table is in the CCo. The Examiner even admits that the CCo maintains a topology table (Examiner's Answer, page 24, line 3). Furthermore, a table cannot manage the information. It is merely a tabulation of the discovered node lists for all nodes associated with the network (Ayyagari, paragraph [0076], lines 1-5).

An examination of the Examiner's rejection of claim 6 which provides further specificity of the information module indicates that the topology table cannot be the information module.;

In rejecting claim 6, the Examiner contends that teaches the information module, comprising a collector to collect the information, citing paragraph [0113]; a translator, citing Figure 6 and paragraph [0066], lines 10-11; a node selector, citing paragraph [0070], and a synchronizer, citing paragraphs [0055] and [0084].

For ease of the reference, the cited paragraphs are copied below.

“A network herein is further described as the largest collection of nodes from a group of nodes that participate in the topology discovery and network organization processes, where every node in the collection can hear every other node, and can be heard by every node in the collection. This implies that all nodes in a network have bi-directional links to each other.” (*Ayyagari*, paragraph [0113]. *Emphasis added.*).

“During the discovery process, nodes may only advertise their own identities. This allows nodes that already belong to the network to determine their connectivity within the network. It does not allow hidden nodes the opportunity to join the network, or to take part in the DISCOVERY process. This option is chosen when the CCo is not interested in optimizing coverage by enabling access to the network for Hidden Nodes. The START_DISCOVERY_MSG must indicate which form of the DISCOVERY_MSG is to be transmitted by the nodes. The format of such an abbreviated discovery message is pictured in FIG. 6.” (*Ayyagari*, paragraph [0066]. *Emphasis added.*).

“This message is transmitted by a new device that has been selected as the CCo, or by the current CCo itself, after network organization is completed. The format of this message is shown in FIG. 8. The CCo_NETCONFIG_MSG message confirms the identity of the CCo, and informs the network of the identities of those nodes that have been designated as Proxy Nodes by the CCo, as well as the identities of the Hidden Nodes that will be served by each Proxy Node.” (*Ayyagari*, paragraph [0070]. *Emphasis added.*).

“DISCOVER: The CCo periodically initiates a node discovery process. Every known node is allowed to transmit a DISCOVER_MSG message in a contention free mode, using an allocation (frequencies and time slots) granted by the CCo. The DISCOVER_MSG can simply contain the MAC address/TEI (Temporary Equipment Identifier) of the source device, or it may also contain the Frame number and time slots for future contention periods that follow the end of the Discovery interval. Every other node listens to these DISCOVER_MSG transmissions and updates its DISCOVERED_NODE_LIST. This list is a structure maintained by every node which contains the identities (MAC

addresses or TEIs) of the other nodes that the node can hear. "Hidden" nodes communicate with any Proxy node they hear via the Contention Access intervals advertised in the DISCOVER_MSGs. Every node then conveys its DISCOVERED_NODES_LIST to the CCo with a message similar to CCo_DISCOVERED_NODE_LIST_MSG. The CCo maintains the resulting TOPOLOGY_TABLE." (Ayyagari, paragraph [0055]. *Emphasis added.*).

"3. T_DISCOVERY_INTERVAL: This is the time interval between two successive Discovery periods. Since the Discovery process adds overhead and consumes bandwidth, it is desirable to limit how often the CCo schedules discovery periods. However, the CCo MUST schedule these periods often enough to allow hidden nodes to join the network and for the network to update its topology." (Ayyagari, paragraph [0084]. *Emphasis added.*).

As seen from the above excerpt, Ayyagari merely discloses:

- (1) a network is described as the largest collection of nodes (Ayyagari, paragraph [0113], lines 1-2), not a collector to collect the information. A collection of nodes does not mean that it can collect the information. Furthermore, since the Examiner interpreted the information module as a topology table, this topology table is not related to the collection of nodes;
- (2) the format an abbreviated discovery message" (Ayyagari, paragraph [0066], lines 10-11), not a translator coupled to the collector to translate the discovery information into the common description. A mere format of a message does not mean that it can translate the discovery information into the common description. Translation connotes an act of conversion of the information into a description;
- (3) a new device that has been selected as the CCo (Ayyagari, paragraph [0070], lines 1-2), not a node selector to determine if the local node participates in the communication. A device selected as the CCo is not the same as a node selector. Furthermore, the Examiner has interpreted the CCo as the frame module, therefore it cannot be a node selector or a local node;
- (4) a list contains the identities (MAC addresses or TEIs) of the other nodes that the node can hear (Ayyagari, paragraph [0055], lines 11-13); and the CCo MUST schedule these periods often enough (Ayyagari, paragraph [0084], lines 5-6), not a synchronizer to synchronize the collected information with other

information. Listening to the identities or scheduling the periods is not the same and synchronize the collected information.

4. Claims 2, 9, 14, 21, 26, and 33:

The Examiner contends that Barber teaches a frame poller, citing paragraphs [0012] and [0103], teaching package up traffic between visitor clients. However, Applicant has presented in the Appeal Brief regarding the RTS/CTS (request-to-send/clear-to-send) polling interaction in paragraph [0012], and the tunnel 1204 packages up traffic between visitor clients, such as client 1202(1), and transports it to a firewall 1206 to allow for a visitor client to access the Internet 1220, but not send or receive traffic to or from the LAN in paragraph [0113]. The Examiner presents a polling interaction for the 802.11 MAC protocol, emphasizing that this is not to introduce a new ground of rejection (Examiner's Answer, page 37). However, the polling channel access mechanism for the 802.11 MAC protocol has nothing to do with the RTS/CTS polling interaction in Barber. The RTS/CTS polling interaction in Barber refers to the 802.11 CSMA/CA protocol to reduce the collision probability between multiple stations accessing the medium at the point in time where collisions are most likely occur. It is not related to a frame poller to provide a polling frame requesting for information of the remote node.

5. Claims 11, 23, and 35:

The Examiner interprets the interference list field + transmit allocation field + receive allocation field together to be the network state information (Examiner's Answer, page 39). However, Nanda merely discloses interference lists from coordination messages contained in the one or more received signals from respective one or more remote devices (Nanda, paragraphs [0010], [0013]). Nanda does not disclose that the interference list is included as part of the network state information.

Conclusion

Applicant respectfully requests that the Board enter a decision overturning the Examiner's rejection of all pending claims, and holding that the claims satisfy the requirements of 35 U.S.C. §101, 35 U.S.C. §112, and 35 U.S.C. §103(a).

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: March 12, 2010

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Authorization for Extension of Time, All Replies

Authorization is given to treat any concurrent or future reply, requiring a petition for an extension of time under 37 CFR 1.136(a) for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. If any other petition is necessary for consideration of this paper, it is hereby so petitioned. Please charge any shortage in fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 02-2666 and please credit any excess fees to such deposit account.

Respectfully submitted,

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